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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,751	10/01/2003	Kevin J. Petit	085056120027	7935

7590

03/25/2005

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EXAMINER

HOGAN, JAMES SEAN

ART UNIT

PAPER NUMBER

3752

DATE MAILED: 03/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/676,751	Applicant(s) PETIT, KEVIN J.	
	Examiner James S Hogan	Art Unit 3752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-37 is/are rejected.
- 7) ☒ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/1/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 20 objected to because of the following informalities: The word "reminder" in claim 20 is misspelled, but perceived to be "remainder". Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1--37 rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent No. 2,054,964 to Barker in view of U.S. Patent No. 2,627,439 to Wornall.

Regarding claim 1, 2, 15, 20-24, 28 and 32, Barker ('864) teaches a stream shaper (see Figures 1-3) having a pair of vane groups (20 and 30). Barker also teaches the vane groups can be "disposed in the throat ...and secured to the sleeve in any desired and well known manner" (Col 2, line 45-50), which would include arranging the vanes so that they are circumferentially offset from each other, as regarded in claim 24, 25, 28, 29, 30 and 37. Barker does not teach vane groups having a plurality of circumferentially spaced axially extending vanes. Wornall ('439) teaches (see Figure 3) a nozzle with a stream "straightener" (16) having a plurality of circumferentially spaced axially extending vanes. As per claim 2, the vanes of Wornall extend radially between

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inner (35) and outer (not numbered) cylindrical walls. As per claim 3, 16, 27, and 31, the straightener of Wornall ('439) discloses an axially extending cylindrical passage (35).

As per claim 4, 5, and 34 the straightener of Wornall ('439) discloses what would be an equal number of vanes if used to replace the vane groups of Barker, with Wornall ('439) disclosing 8 vanes. As per claim 6 15, 17, 26, 35 and 36, Barker teaches the vane groups spaced a distance apart (15) so that separated streams from the first vane group are reassembled before entering the second vane group. As per claim 8, as best that can be determined, the vanes of Barker ('864) have a smooth finish. As per claim 11, 19, and 33 the straightener of Wornall ('439) discloses what would be vanes groups having an equal axial length and equal size if used too replace the vane groups of Barker ('864). As per claim 14, as best as can be reasonably determined, the central cylindrical passage of Wornall is within twenty percent of the cross sectional area of each of the vane passages the Wornall device has. It would have been obvious to one skilled in the art at the time the invention was made to have substituted the vane groups of Barker ('864) with the vane arrangement of Worall ('439) in order to provide a laminar flow to an outputted stream of fluid.

As for claim 7, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the invitation as a one piece construction, since it has been held that forming in one piece an article which was formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893)

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As for claim 9 and 10, Wornall clearly teaches a vane group positioned as an exit group, however it would have been obvious to one skilled in the art at the time the invention was made to have tapered or rounded the discharge ends, since it was held that a change in shape (vs. blunt ends) of the element involves only routine skill in the art. *In re Dailey*, 149 USPQ 47 (CCPA 1966)

As for claim 13, it would have been obvious to one skilled in the art at the time the invention was made to have selected the range of 0.150-0.350 inches, since such a range clearly within the proportions shown by Barker ('864) that selection involves only routine skill in the art. *In re Lindberg*, 93 USPQ 23 (CCPA 1952).

Conclusion

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is as follows:

U.S. Patent No. 4,546,920 to Torgersen, disclosing a sonic water jet

U.S. Patent No. 5,042,461 to Inoue et al., disclosing an ultrasonic operating instrument

U.S. Patent No. 4,176,769 to Cudby et al., disclosing a pour nozzle

U.S. Patent No. 2,744,738 to Hjulian, disclosing an aerator

U.S. Patent No. 3,486,700 to Bristow, disclosing a nozzle

U.S. Patent No. 5,330,105 to Kaylor, disclosing an aspirating nozzle

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S Hogan whose telephone number is (571) 272-4902. The examiner can normally be reached on Mon-Fri, 7:00a-4:00p EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Scherbel can be reached on (571) 272-4919. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JSH
3/18/2005

A handwritten signature in black ink, appearing to read 'D. Scherbel', with a stylized, cursive script.

David A. Scherbel
Supervisory Patent Examiner
Group 3700